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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/042,592

01/09/2002

Martin Ebert

6617

7590

12/11/2003

STALLMAN & POLLOCK LLP

Atten: Michael A. Stallman

Suite 290

121 Spear Street

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EXAMINER

LAUCHMAN, LAYLA G

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 12/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/042,592

Applicant(s)

EBERT ET AL.

Examiner

L. G. Lauchman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1-18 and 21-24 is/are allowed.
- 6) ☒ Claim(s) 19 and 20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 January 0202 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Liang-Yao Chen, Xing-Wei Feng, Yi Su, Hong-Zhou Ma, and You-Hua Qian," *Applied Physics Letters*, vol. 33, No. 7, pp. 1299-1305.

As to Claim 19, the article discloses a compact waveplate assembly 5 (see Fig. 2) for an ellipsometric apparatus, said waveplate assembly comprising a stepper motor having a hollow shaft, said hollow shaft carrying a waveplate 3 having an optical axis being collinear to an axis of revolution of said hollow shaft (p. 1302, left-side column, lines 13-17).

As to Claim 20, the article discloses an ellipsometer for evaluating a sample comprising (see Fig. 2): a light source generating a probe beam directed to reflect off the sample 7; a detection system for evaluating the change in polarization state of the beam induced by reflection from the sample (PMT); an optical element (3, 4) locating along the propagation axis of the beam, said element selected from the group consisting of a polarizer and a waveplate retarder (analyzer); and a motor 5 for rotating the optical element, said motor including a hollow rotor shaft, with said optical element

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being mounted to the hollow shaft in a manner such that the probe beam light can travel through said hollow shaft and said optical element (p. 1302, left-side column, lines 13-17).

Allowable Subject Matter

Claims 1-18, 21-24 are allowed.

The following is an examiner's statement of reasons for allowance:

As to Claim 1, the prior art of record taken along or in combination, fails to disclose or render obvious first probe beam directed to reflect off the sample in a first direction and a second probe beam directed to reflect off the sample in a second direction substantially perpendicular to the first direction, in combination with the rest of the limitations of the claim.

As to Claim 5, the prior art of record taken along or in combination, fails to disclose or render obvious a first set of optical elements for directing the first probe beam to reflect off the sample in a first direction and for directing the reflected first probe beam to the detector system and a second set of optical elements for directing the second probe beam to reflect off the sample in a second direction, with said second direction being substantially perpendicular to the first direction and for directing the reflected second probe beam to the detector system, in combination with the rest of the limitations of the claim.

As to Claim 9, the prior art of record taken along or in combination, fails to disclose or render obvious a first optical element for selectively directing the probe beam along one of two paths to the sample, with the first path being configured to direct

the beam to reflect off the sample in a first direction and the second path begin configured to direct the beam to reflect off the sample in a second direction substantially perpendicular to the first direction, in combination with the rest of the limitations of the claim.

As to Claim 15, the prior art of record taken along or in combination, fails to disclose or render obvious a first lens unit in the first path to provide a focused first beam directed to the sample in a first impinging direction and a second lens unit in the second path to provide a focused second beam directed to the sample in a second impinging direction substantially perpendicular to the first impinging direction, in combination with the rest of the limitations of the claim.

As to Claim 21, the prior art of record taken along or in combination, fails to disclose or render obvious a first fixed optical path between the light source and the detector, said first path being configured so that the probe beam is directed to the sample along a first impinging direction; and a second fixed optical path between the light source and the detector, said second path being configured so that the probe beam is directed to the sample along a second impinging direction, substantially perpendicular to the first impinging direction, in combination with the rest of the limitations of the claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Papers related to this application may be submitted to Technology Center 2800 by facsimile transmission. Papers should be faxed to TC 2877 via the PTO Fax Center located in CP4-4C23. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CP4 Fax Center number is (703) 872-9306.

If the Applicant wishes to send a Fax dealing with either a Proposed Amendment or for discussion for a phone interview then the fax should:

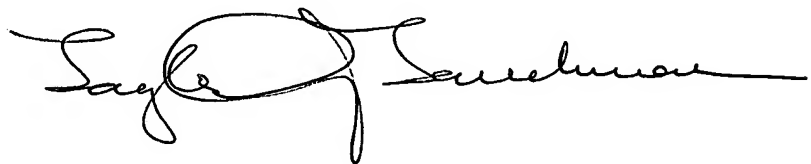
a) Contain either the statement "DRAFT" or "PROPOSED AMENDMENT" on the Fax Cover Sheet; and

b) Should be unsigned by the attorney or agent.

This will ensure that it will not be entered into the case and will be forwarded to the examiner as quickly as possible.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to L. G. Lauchman whose telephone number is (703) 305-0071.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC receptionist whose telephone number is (703) 308-0956.

A handwritten signature in black ink, appearing to read 'L. G. Lauchman', with a stylized, cursive script.

L. G. Lauchman
Patent Examiner
Art Unit 2877
11/26/03/lgl